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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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WOODCOCK WASHBURN LLP  
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EXAMINER

STIMPAK, JOHNNA

ART UNIT PAPER NUMBER

3623

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/733,299

Applicant(s)

BLANCO, EDGAR E.

Examiner

Johnna R Stimpak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The following is a first Office Action upon examination of application number 09/733,299. Claims 1-19 are pending and have been examined on the merits discussed below.

#### ***Claim Rejections - 35 USC § 101***

2. Claims 1, 2 and 5-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

In the present case, claims 1, 2 and 5-19 only recite an abstract idea. The recited steps of merely determining the quantity of an item needed for a particular project using an algorithm does not apply, involve, use, or advance the technological arts since all of the recited steps can be performed in the mind of the user or by use of a pencil and paper. These steps only constitute an idea of how to determine the amount of an item needed for a project.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, the claimed invention produces a quantity of items needed for a project (i.e., repeatable, useful and tangible).

Although the recited process produces a useful, concrete, and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, claims 1, 2 and 5-19 are deemed non-statutory subject matter.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gleditsch et al, US 6,415,195 in view of Mahapatro, US 6,571,215.

As per **claim 1**, Gleditsch et al teaches project information for each project including a reference to items to be employed in connection with the project (column 3 line 50 – column 4, line 33 – method to determines daily demand for manufacturing resources based on customer orders and predefined parameters related to the manufacturing resources) and item information including a references to an algorithm to determine a quantity of the item for a project (column 3 line 50 – column 4, line 33 – the method provides a projection of demand on manufacturing resources; column 8, lines 41-51 – the method uses a smoothing process that comprises a computer and software programming an algorithm for smoothing the demand for the resources

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for a product over time) but does not explicitly teach a project table, an item table or an algorithm table. Mahapatro teaches using a table to show task information along with assignments of resources and constraints used to schedule assignments (column 13, table 2 and column 14, table 3). Since both Gleditsch et al and Mahapatro both teach the determination of the amount of resources assigned to a task, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gleditsch et al's resource assignment to utilize Mahapatro's table format to display the information for each project since it is well known that the use of tables offers a more organized, efficient way of viewing data.

As per **claim 2**, Gleditsch et al teaches the quantifiable items are selected from group consisting of parts, materials, equipment, labor, time, and combinations thereof (column 5, lines 32-37 – resources include raw materials, machine or production line time, shift worker hours, other labor, space, power or any other quantity whose constraint affects the ability to accept orders for the delivery of goods or services).

As per **claim 3**, Gleditsch et al teaches the database tables are distributed across several computers (column 4, lines 20-33 – the system is linked to various controlling mechanisms in the process such as an ordering system of suppliers or customers).

As per **claim 4**, Gleditsch et al teaches a database server for controlling and coordinating the database (column 4, lines 20-33 and column 8, lines 41-51 – the computer system including a database is linked to various controlling mechanisms in the process as well as to ordering systems, inherently a server is used to store the data for retrieval by the entities involved).

As per **claim 5**, Gleditsch et al teaches the project information further includes an identification of a project-type of the project, the tables further comprising a project-type table

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having project-type information for each project-type referenced by the project table, the project-type information including each item to be employed in connection with the project-type (column 4, lines 20-33 – the database stores predefined parameters in connection with each project for allocation of resources; column 3 line 50 – column 4, line 33 – method to determines daily demand for manufacturing resources based on customer orders and predefined parameters related to the manufacturing resources).

As per **claim 6**, Gleditsch et al teaches the project information further includes at least one milestone date for the project, the tables further comprising a milestone table having milestone information for each milestone date referenced by the project table, the milestone information including at least one key project moment to which a need for an item for the project is referenced (column 3, lines 61-67 – calculates when certain amounts of materials or other resources will be needed based on orders and determines the date when the materials need to be purchased from the supplier).

As per **claim 7**, Gleditsch et al teaches the item information further includes a reference to the milestone information in the milestone table and information on how to calculate a date when the item is required based on the milestone information (column 3, lines 61-67 – calculates when certain amounts of materials or other resources will be needed based on orders and determines the date when the materials need to be purchased from the supplier).

As per **claim 8**, Gleditsch et al teaches the item information further includes an identification of at least one supplier, the tables further comprising a supplier table having supplier information for each supplier referenced by the item table, the supplier information including the items supplied by the supplier and information for each supplied item (column 4,

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lines 20-33 – the computer system is linked to the suppliers for generating purchasing orders for more materials).

As per **claim 9**, Gleditsch et al teaches the information for each supplied item is selected from a group consisting of lead-time necessary for supplying the item but does not explicitly teach item prices, and capacity for supplying the item. Official notice is taken that it would have been obvious to one of ordinary skill in the art to also include item prices and capacity for supplying the item when ordering supply from a supplier because it is old and well known in the art of supply and demand to factor in such things as cost and availability to ensure that a company is getting what it needs in the most beneficial way possible. For example, when evaluating the order of supplies it is always important to factor in cost, lead-time and availability to ensure the production schedule will face a set back thereby leading to a more efficient production schedule.

As per **claim 10**, Gleditsch et al teaches the algorithm information for each algorithm is selected from a group consisting of: algorithm information that calculates a quantity of an item based on a mathematical calculation and data available from the tables of the databases; algorithm information that calculates a quantity of an item based on a quantity calculated for another item; algorithm information that refers to a lookup table; and combinations thereof (column 3 line 50 – column 4, line 33 – the method provides a projection of demand on manufacturing resources; column 8, lines 41-51 – the method uses a smoothing process that comprises a computer and software programming an algorithm for smoothing the demand for the resources for a product over time; column 12, lines 15-32 – an example of how the algorithm

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works as orders come in and how the system is able to calculate based on time and demand for each project).

As per **claim 11**, Gleditsch et al teaches storing information based on demand for items (column 4, lines 20-33 – database stores information for customer orders and generates reports of resource allocation).

As per **claim 12**, Gleditsch et al teaches storing project information, items for the project and the amount of the item required for the project (column 3, lines 50-67 and column 4, lines 6-33 – system stores project information and determines amount of item required for the project).

As per **claim 13**, Gleditsch et al teaches storing information including the date when the item is needed for the project (column 3, lines 50-67 – system calculates when materials are needed based on orders and determines the date when supplies must be ordered).

As per **claim 14**, Gleditsch et al teaches storing information including the date when the item is needed for the project (column 3, lines 50-67 – system calculates when materials are needed based on orders and determines the date when supplies must be ordered).

As per **claim 15**, Gleditsch et al teaches information including a supplier the item is to be ordered from (column 3, lines 60-67 – suppliers are inherently identified since the lead time associated with the supplier is used to order the needed materials).

As per **claims 11-15**, Gleditsch et al does not explicitly teach populating a requirements table with information. Mahapatro teaches using a table to show task information along with assignments of resources and constraints used to schedule assignments (column 13, table 2 and column 14, table 3). Since both Gleditsch et al and Mahapatro both teach the determination of the amount of resources assigned to a task, it would have been obvious to one of ordinary skill in



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the art at the time of the invention to modify Gleditsch et al's resource assignment to utilize Mahapatro's table format to display the information for each project since it is well known that the use of tables offers a more organized, efficient way of viewing data.

As per **claim 16**, Gleditsch et al teaches the project information including a reference to items to be employed in connection with the project, determining an item needed for a project; the item information including a reference to an algorithm to be employed to determine a quantity of the item for a particular project, determining an algorithm necessary to determine a quantity of the needed item; determining specifics of the necessary algorithm; from each table as necessary, obtaining any inputs necessary for the algorithm; and applying the inputs to the algorithm to determine the quantity of the needed item (column 3 line 50 – column 4, line 33 – method to determines daily demand for manufacturing resources based on customer orders and predefined parameters related to the manufacturing resources) and item information including a references to an algorithm to determine a quantity of the item for a project (column 3 line 50 – column 4, line 33 – the method provides a projection of demand on manufacturing resources; column 8, lines 41-51 – the method uses a smoothing process that comprises a computer and software programming an algorithm for smoothing the demand for the resources for a product over time). Gleditsch et al does not explicitly teach the use of tables for storing information to determine future demand. Mahapatro teaches using a table to show task information along with assignments of resources and constraints used to schedule assignments (column 13, table 2 and column 14, table 3). Since both Gleditsch et al and Mahapatro both teach the determination of the amount of resources assigned to a task, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gleditsch et al's resource assignment to utilize

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Mahapatro's table format to display the information for each project since it is well known that the use of tables offers a more organized, efficient way of viewing data.

As per **claim 17**, Gleditsch et al teaches, determining a project type of the project, the method further comprising, determining the item needed according to the project type of the project (column 4, lines 20-33 – the database stores predefined parameters in connection with each project for allocation of resources; column 3 line 50 – column 4, line 33 – method to determines daily demand for manufacturing resources based on customer orders and predefined parameters related to the manufacturing resources). Gleditsch et al does not explicitly teach the use of tables for storing information to determine future demand. Mahapatro teaches using a table to show task information along with assignments of resources and constraints used to schedule assignments (column 13, table 2 and column 14, table 3). Since both Gleditsch et al and Mahapatro both teach the determination of the amount of resources assigned to a task, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gleditsch et al's resource assignment to utilize Mahapatro's table format to display the information for each project since it is well known that the use of tables offers a more organized, efficient way of viewing data.

As per **claim 18**, Gleditsch et al teaches, determining which milestone is employed to calculate the date on which the item is required; determining the date in the project table that is the actual milestone date; obtaining such actual milestone date; and applying the actual milestone date to calculate the date on which the item is required (column 3, lines 61-67 – calculates when certain amounts of materials or other resources will be needed based on orders and determines the date when the materials need to be purchased from the supplier). Gleditsch et al does not

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explicitly teach the use of tables for storing information to determine future demand. Mahapatro teaches using a table to show task information along with assignments of resources and constraints used to schedule assignments (column 13, table 2 and column 14, table 3). Since both Gleditsch et al and Mahapatro both teach the determination of the amount of resources assigned to a task, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gleditsch et al's resource assignment to utilize Mahapatro's table format to display the information for each project since it is well known that the use of tables offers a more organized, efficient way of viewing data.

As per **claim 19**, Gleditsch et al teaches from the items table, determining a supplier of the needed item; from the supplier table, obtaining lead-time information for supplying the item; and calculating an order date based on an item requirement date and the lead-time information (column 4, lines 20-33 – the computer system is linked to the suppliers for generating purchasing orders for more materials). Gleditsch et al does not explicitly teach the use of tables for storing information to determine future demand. Mahapatro teaches using a table to show task information along with assignments of resources and constraints used to schedule assignments (column 13, table 2 and column 14, table 3). Since both Gleditsch et al and Mahapatro both teach the determination of the amount of resources assigned to a task, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gleditsch et al's resource assignment to utilize Mahapatro's table format to display the information for each project since it is well known that the use of tables offers a more organized, efficient way of viewing data.

### ***Conclusion***

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5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zweben et al, US 6,216,109 – iterative repair optimization with particular application to scheduling for integrated capacity and inventory planning.

Lewis et al, US 6,711,550 – method and system for capacity planning

Rohan, US 5,797,129 – predicting resource usage in a multiple task, multiple resource environment

Jayaraman et al – US 5,287,267 – methods for parts procurement quantity determination where demand is uncertain for the product in which the parts are used

Miller – US 5,408,663 – resource allocation methods

Dietrich et al – US 5,548,518 – allocation method for generating a production schedule

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnna R Stimpak whose telephone number is 703-305-4566. The examiner can normally be reached on M-F 8am-5:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 703-305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS

9/21/04



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